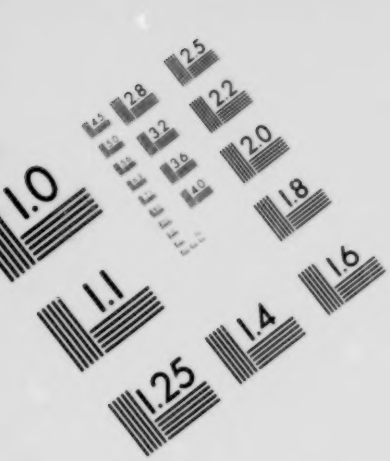

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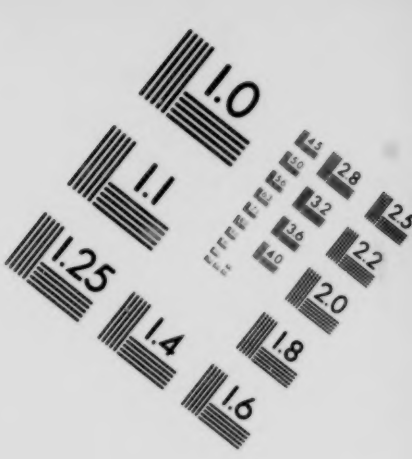

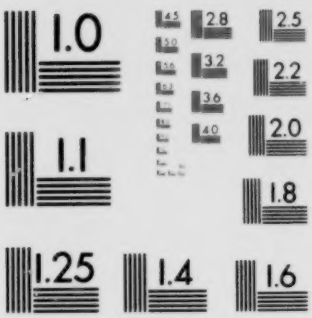

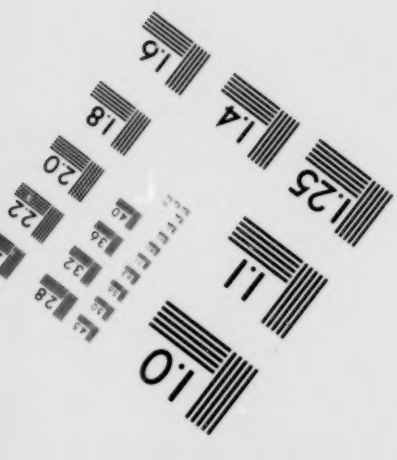

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THE CLINICAL NURSE SPECIALIST IN THE SCHOOL SETTING: CASE MANAGEMENT OF MIGRANT CHILDREN WITH DENTAL DISEASE

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ABSTRACT

THE CLINICAL NURSE SPECIALIST IN THE SCHOOL SETTING: CASE MANAGEMENT OF MIGRANT CHILDREN WITH DENTAL DISEASE

Dental disease is the major health problem for all school-age children in the nation; for migrant children the problem is most severe. This paper presents strategies for the clinical nurse specialist in the school setting to use in case management of migrant children with dental disease. The barriers migrant families face in obtaining health care are addressed.

Leininger's transcultural care theory serves as a conceptual framework. Examples of how the clinical nurse specialist functions in the roles of clinician, educator, consultant, and researcher are given. The federally funded Migrant Education Program is described, along with a model dental program developed by a clinical nurse specialist. Suggestions for documenting the effectiveness of the clinical nurse specialist's role in cost containment and in influencing positive outcome measures of school-age children are presented.

Key words: case management, dental disease, migrant children

AUTHOR BIOGRAPHY

Mary Ellen Good, MS, MPH, RN, received a BS degree in Nursing from Northern Arizona University, a Masters of Public Health from the University of California, Berkeley, and a Masters of Science from San Jose State University. She is a member of Sigma Theta Tau and is active in numerous professional organizations, including the American Public Health Association, and the U.S.- Mexico Border Health Association. She is currently developing a comprehensive health program to address the needs of children enrolled in Oregon's Migrant Education Program.

Introduction

Total wellness includes good oral health. The condition and functioning of the tissues and structures of the mouth affect a person's general physical appearance, ability to speak and chew, and relations with others. Oral disease creates pain, suffering, financial burden, and loss of days from school or work.

Dental disease is the major health problem of all school-age children in the nation (California State Department of Education, 1984); for children of migrant farmworkers, the problem is even more severe (Call, Entwistle, & Swanson, 1987, Colorado State Migrant Education program, 1988, Di Angelis, Katz, Jensen, Pintado, & Johnson, 1981, Good, 1990, Graham, 1986, Ismail & Szpunar, 1990, Michael & Salend, 1985, Policy Analysis for California Education [PACE], 1989). Poor nutrition and sanitation contribute to an increased prevalence of oral disease in migrant families who seldom have insurance or money to obtain costly dental care. Roughly one-third of the nation's migrant children live in the state of California. This paper focuses on dental disease in California's migrant population, although the nature of the problem of remains consistent across the nation.

For the purpose of this paper, the term "migrant" refers to people who have come to the United States from Mexico to seek work in agriculturally related fields. They are a highly insular and ethnically conscious group, which makes it difficult to serve them (Byerly, 1980). With minority students now the majority in many of California's public schools, school nurses are challenged to provide culturally sensitive care to children of diverse ethnic backgrounds. This paper defines the school nurse as a clinical nurse specialist (CNS) in the school setting.

Migrant Health

Migrant children are among the most vulnerable in America's classrooms. They live in a world of poverty, mobility, and cultural alienation where low expectations become self-fulling prophecies (Harrington, 1987). The negative consequences of poverty and a mobile lifestyle are demonstrated in the poor health status of the migrant population (Wilk, 1986).

Good physical, mental, and social well-being is a necessary prerequisite for students to achieve their greatest potential in healthful living (California State Department of Education, 1984). Numerous barriers restrict migrant children from obtaining health services which could improve their chances for academic success. They are

disadvantaged in terms of access to high-quality health services that could prevent, diagnose, and treat their health problems. Poverty, fear of deportation, discrimination, language difficulties, and lack of insurance coverage have been identified as access barriers to the health care system (Marin, Marin, & Padilla, 1982). Because of frequent moves to seek employment, health care for migrant families is often fragmented at best.

Migrant children, like other poor and minority children, are at high risk of developing dental problems, and their numbers are increasing in California. Statistics from California's Dental Disease Prevention Program show that the incidence of dental caries is highly concentrated - 25% of the children in California suffer 80% of the tooth decay (PACE, 1989). These children are most often from poor or minority families. Mexican-American children between 6 and 17 years of age have more than twice the mean number of untreated decayed teeth than the average for all children living in California (PACE, 1989).

Dental disease can negatively impact learning potential and academic performance because of its resulting pain. Children who are in pain are often absent from school, and if they are present, their attention is usually distracted. Education is interrupted when children are absent or suffer

pain; the CNS is in a strong position to improve the health status and educational experience of migrant children through case management of their dental disease.

Prevention is the preferred "treatment" for any disorder in children. Dental disease is preventable. With education, adequate nutrition, and dental hygiene (brushing, use of fluoride, and sealants), its incidence can almost totally be eliminated. The direct cost of treating dental disease is very high; few migrant families can afford it. The indirect cost of untreated dental disease includes pain, loss of days from school, and loss of permanent teeth.

The lack of dentists willing to accept DentiCal (California's version of Medicaid's dental insurance) compounds the problems of securing preventive or curative treatment. The main reasons dentists are unwilling to see DentiCal patients is low reimbursement for treatment. For many dentists, the reimbursement rates provided by the cost-conscious state health insurance bureaucracy do not even cover their overhead costs (PACE, 1989). Without insurance benefits, many migrant children are left without care, and continue to suffer the pain and irreversible progression of dental disease.

The Migrant Education Program

Obtaining valid health statistics on migrant children is not always easy. Describing the magnitude of their problems in epidemiologic terms is difficult because of two factors: (a) defining who they are, and (b) counting them. Subsequently, the difficulty of quantifying their health status with any precision is compounded. The CNS is fortunate in that there is a large, readily available sample of children in the school setting on which to conduct research. Identifying which children are "migrant" is the first step in the research process.

The Migrant Education Program was established in 1964 as part of the Federal Elementary and Secondary Education Act (Public Law 95-561) to provide supplemental instructional and health and welfare services for migrant students across the nation. The Migrant Education Program can provide the CNS with lists of the names of children enrolled in its program. This valuable resources can help the CNS plan health programs for migrant children. These lists facilitate identification of a sample, from which descriptive and comparative studies can be generated.

Conceptual Framework

Leininger's transcultural care theory (1988a) serves as a useful model for the CNS working with migrant children.

According to Leininger, (1978), "transcultural nurse specialists .... will be tomorrow's leaders in national and international teaching, research, and service programs" (p. 28). Her description of the transcultural nurse specialist is analogous with the that of the CNS. Leininger's theory is comprehensive and holistic in that it addresses social structure, world view, values, environment, language, and folk-professional systems. The theory focuses on the concept of cultural congruent care. The goal of the theory is to provide quality care to clients of diverse cultures that is meaningful, satisfying, and beneficial to them (Leininger, 1988).

Leininger views people as caring beings whose lifeways are largely determined by cultural values, beliefs, and practices. Her transcultural care model provides the CNS a framework for understanding cultural care. Her sunrise model is presented in Figure 1 which illustrates a world view approach to nursing care. In order to effect change and improve the health status of migrant children, an understanding of the "migrant culture" is essential. The CNS must examine the influence of economic factors, educational factors, cultural values and lifeways, and technological factors on the incidence of dental disease.

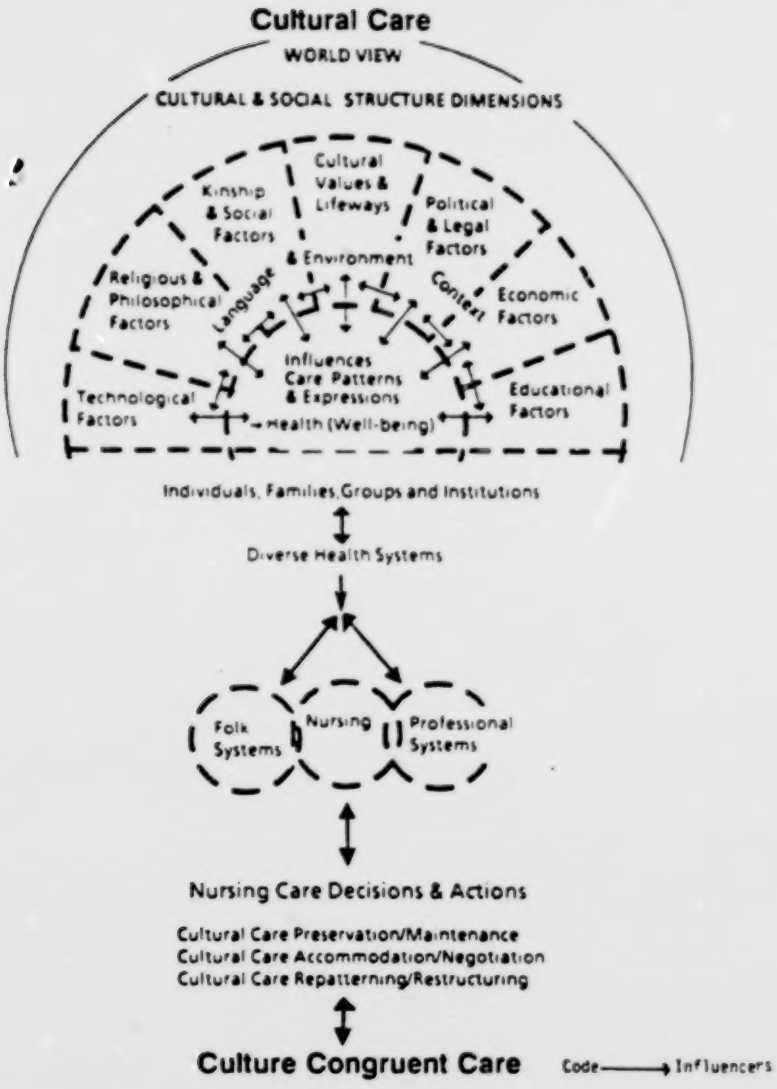

Figure 1. Leíninger's Sunrise Model

Note: From "Leininger's theory of nursing: Cultural care diversity and universality" by Madeleine Leininger, 1988, Nursing Science Quarterly, 1, 4, p. 157. Copyright 1980 by Williams and Wilkins. Reprinted by permission.

Leininger's model assists the CNS examine cultural and social structure dimensions to plan culture congruent care.

Important research questions related to the causes of the very high incidence of dental disease in migrant children are generated when the CNS utilizes the sunrise model. Examples of research questions the CNS can address in the school setting are: Why do migrant children have such a high incidence of dental decay? What are the influences of economics, nutrition, education, and culture on dental health? What resources do migrant families have to improve the dental health of their children? What is the effect of dental disease on a child's attendance and performane in school?

The Role of the CNS in Case Management

The CNS is ideally suited to case manage dental disease of migrant children in the school setting. The four roles of the CNS - clinician, educator, researcher, and consultant can all be incorporated in case management of this particular health problem. The American Nurses Association (1988) defines the goals of case management as providing quality health care along a continuum, decreasing fragmentation of care across many settings, enhancing the client's quality of life, and cost containment. The framework for nursing case management includes five

components: assess, plan, implement, evaluate, and interact. These components fit neatly into the four roles of the CNS.

As a clinician, the CNS assesses the dental health of children by means of dental screenings in the classroom. The examination of the teeth and gums is not a substitute for a complete dental examination, but should reveal gross problems such as decay, infection, broken teeth, malocclusion, and oral lesions. The teeth are counted, taking into consideration the child's age in determining the number of primary teeth (20), or permanent teeth (32), that are present or missing. Any signs of inflammation and hemorrhage of the gums (gingivitis) may indicate more serious periodontal disease (pyorrhea) involving the bones and ligament that anchor teeth in their sockets (Malasanos, Barkauskas, Moss, & Stoltenberg-Allen, 1990). A dental screening form useful for recording findings of dental assessments of children is presented in Figure 2.

The critical link between the practitioner and the focus of practice is the patient/client/family as the recipients of expert practice (Beecroft, & Papenhausen, 1989). As a clinician in the school setting, the CNS provides care and services to childrenand their fammilies.

There are multiple causes for the high incidence of dental disease in the migrant population. Families must be

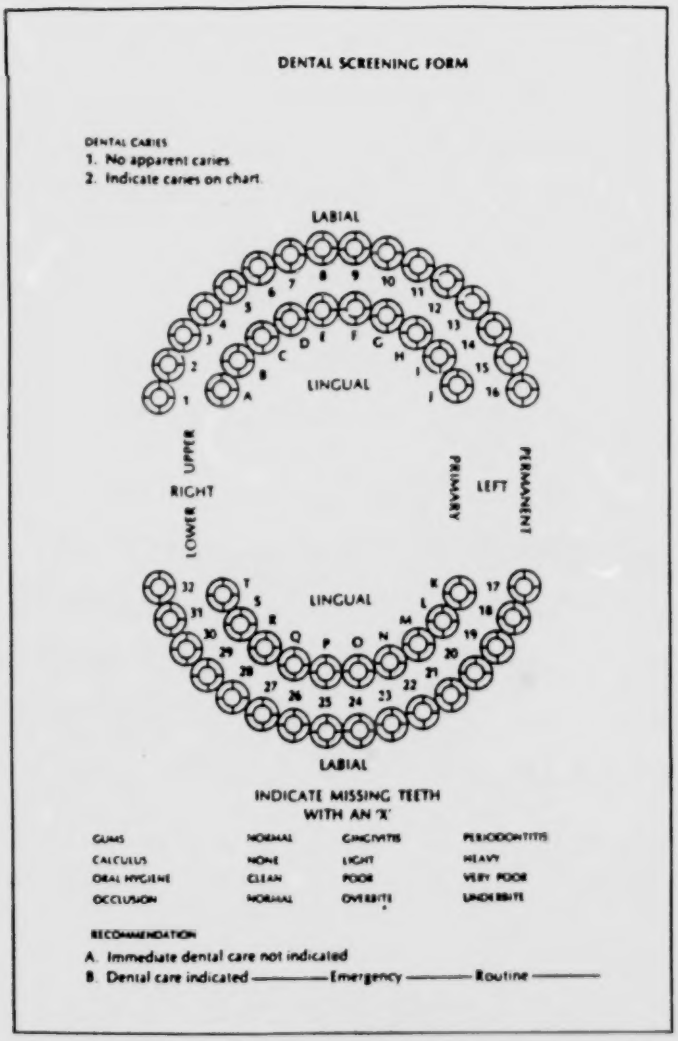

Figure 2. Dental screening form

Note: From "Health Assessment" by L. Malasanos, V. Barkauskas, M. Moss, K. Stoltenberg-Allen, 1990, p. 219. Copyright 1990 by the C.V. Mosby Company. Reprinted by permission.

involved in identifying the causes and possible solutions to the problem. The CNS is challenged to assist migrant families to problem solve, and to change health-harming behavior which may have a strong cultural base.

Identification of dental problems in migrant children is only the beginning; finding creative, cost-effective, and culturally-appropriate solutions remains a challenge. The CNS is in an excellent position to advocate for, and to implement such solutions.

In the role of clinician, the CNS documents the incidence of the problem. As a researcher, the CNS collects and analyzes data. In the educator role, the CNS provides instruction to children, teachers, and parents to prevent and correct the problem. As a consultant, the CNS plans and evaluates programs that meet the special dental needs of migrant children. By interacting with other professionals such as dentists, administrators, and public officials, the CNS has the potential to influence change and improve the health of children.

One of the functions of the nurse case manager is to analyze and synthesize data to formulate appropriate nursing diagnoses and interdisciplinary problem statements (American Nurses Association, 1988). Carpinito (1984) defines alterations in the oral mucus membranes as a state in which

an individual experiences, or is at risk of experiencing, disruptions in the oral cavity. The CNS can use this nursing diagnosis and incorporate it in case management.

Dental screening provides the CNS an opportunity to complete a overall health assessment. During the screening process, the CNS can evaluate whether children are wearing their prescribed glasses, and if their glasses are in satisfactory condition. An assessment of general appearance may alert the CNS to signs of child abuse, inadequate nutrition, or problems with growth and development. Teachers are usually available during dental screenings, which provides the CNS with an opportunity to collaborate on health concerns. Together the teacher and CNS can identify other needs, such as areas of health education that interest the teacher. Dental screening can be a key that opens doors for the CNS to utilize knowledge and skill as an expert in the field of school health.

Many local health departments have a maternal-child health (MCH) advisory board which meets regularly, and whose meetings are open to the public. The CNS can attend these meetings and present health concerns of children in the school setting. The CNS can investigate the availability of grants and special funding, by networking with the MCH advisory board. Currently, in the State of California,

money is available for low-income children to receive free health assessments and medical treatment through the State's Child Health and Disability Prevention Program. Since special funding is often limited by time and legislative constraints, it is essential for the CNS to keep abreast with legislation affecting school-age children. Unfortunately, laws often sunset and funding ends before the public is even aware that it existed. Migrant families are socially and politically unempowered; the CNS can serve as a liaison between them and the political arena.

Dental caries can be prevented by modifying one or more of the three essential factors for their production: increasing the resistance of the teeth by using fluoride and applying sealants, altering the oral environment by dietary intervention, and by reducing or interfering with microorganisms in contact with teeth through the use of fluoride and oral hygiene (Greene, Louie, & Wycoff, 1989). Sealants are a resin coating painted on the child's permanent molars to prevent decay. They are a preventive, cost-effective measure of reducing the incidence of dental disease in children. Since permanent first molars are generally at highest risk of decay in children, and since they remain at risk the longest, preventive intervention with topical fluoride and sealants must occur immediately

after eruption if the rapid onset of decay is to be prevented. Dental programs targeted at children between 6 and 8 years of age are ideal, as these are the ages when the first permanent molars erupt. With this knowledge, the CNS can aim dental education at children in the earliest grades.

In California, the Dental Disease Prevention Program is a school-based effort to teach children the basics of dental hygiene. Tooth brushes and fluoride are provided to teachers willing to allow 5 minutes of class time each day for children to practice oral hygiene. The CNS can be instrumental in educating teachers about the benefits of this program, and by encouraging their participation. As a collaborator, the CNS links the school system to unfamiliar health resources.

Community colleges often have dental hygiene programs which offer services to the public. The CNS can refer children to their clinics where they receive dental education, fluoride treatments, cleaning and scaling of the teeth, application of sealants to permanent molars, x-rays, and treatment-plans. The cost for these preventive services is nominal compared to the high cost of restorative dental work. For example, many dental hygiene clinics charge only $5.00 for cleaning teeth, as opposed to $50.00 in private practice. Sealants cost $3.00-$5.00 per tooth, compared to

$25.00 in private practice. The CNS can organize special clinics to operate on Saturdays, so that migrant children receive care without interrupting their education.

The CNS is in a strong position to facilitate the organization of a migrant parents health task force to discuss common health concerns and strategies to deal with them. Parents can identify community resources and make recommendations to the Migrant Education Program which serves them. Leininger (1978) based her theory on the belief that cultures can determine most of the care they desire or need from professional care-givers. It is essential to involve parents in planing programs for their children; care must be planned with them, not for them.

Dental problems can not be separated from poor nutrition. The CNS can develop family nutrition curriculums that are culturally-appropriate for migrant families. Education should focus on the negative impact of poor nutrition on health, the identification of foods high in sugar which are frequently consumed by the population, and information on how the media can confuse consumers about making healthy food choices.

The CNS is responsible for increasing awareness of the dental health needs of migrant children at three levels: the school district, the community, and the state. Menard

(1987) states that the CNS must be a leader in the political arena, because it is at the legislative level that change really occurs. The CNS must assist migrant families to become empowered and to create positive changes in their lives. Legislation that provides for education, health, and support services to migrant families that are available, affordable, accessible, accountable, and culturally-acceptable to them must be supported. The CNS thus serves as an advocate for migrant children's health.

A Model Program

A creative and inovative Children's Dental Project was developed in Santa Cruz County, California through the collaborative efforts of a CNS, the health department, local dentists, the community college's dental hygiene program, and the county's maternal child and adolescent health advisory board. The program was developed to address dental problems of migrant and low income children. A grant of $5,000.00 was funded by the Community Foundation to pay a coordinator's salary. Sixteen volunteer dentists were recruited to provide dental care at the local community college's dental hygiene clinic on Saturdays, at the cost of $5.00 a visit. Most children required five visits to complete the extensive work needed; the total cost for treatment never exceeded $25.00. The average cost of the

same treatment in the private sector was estimated to be $1,500.00. The program requiree a parent to accompany their child and to participate in 5 hours of preventive dental education. The Children's Dental Project has been recognized by the state of California as a model for integration of community resources to provide dental services to low-income children.

The CNS served as the case manager for the migrant children served by the Children's Dental Program by assessing the nature of their problem (dental screening), planning the care needed to treat the problem (program development), implementing the care (health education for children and their parents), evaluating the program (annual report), and by interacting with the dental team to create a comprehensive program that was culture congruent to the migrant community.

Conclusion

Hamric and Spross (1983) stress the importance of sound documentation of the effect of the CNS on practice and care. Evaluation to measure the cost-effectiveness of the CNS role in the school setting is essential. Research to document the impact of health on learning is needed, as well as the effect the CNS has on improving school attendance. Public schools receive funding based on average daily attendance.

When children are absent for health reasons, the child and the school both loose. The CNS is in an ideal position to impact the health of children, and the funding that provides for their education.

Clinical nurse specialists must document their effectiveness in outcome measures. In the school setting, cost-effectiveness can be measured by improved attendance and financial gains for the educational system. Papenhausen and Beecroft (1990) suggest that in this era of cost containment, disseminating information about the effectiveness of the CNS role is paramount to its survival. Clinical nurse specialists in the school setting have ample opportunities to document the effectiveness of their roles. They must recognize these opportunities, and use them to define and shape the future of school health.

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